

Rabbit GSTA4 Polyclonal Antibody | anti-GSTA4 antibody

Anti-GSTA4 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125700	Rabbit	Human, Monkey	ELISA, Flow Cytometry, Functional Assay, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

GSTA4; Polyclonal Antibody; Anti-GSTA4 Antibody; Glutathione S-transferase A4; GST class-alpha member 4; Glutathione S-transferase A4-4; glutathione S-transferase alpha 4; anti-GSTA4 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Monkey
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for GSTA4 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.005mg Na ₃ .
Applicable Applications for anti-GSTA4 antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	E Coli-derived human GSTA4 recombinant protein (Position: E29-P222).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of U2OS cells using anti-GSTA4 antibody (AAA125700). Overlay histogram showing U2OS cells stained with AAA125700 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GSTA4 Antibody (AAA125700, 1µg/1x10⁶ cells) for 30 min at 20 degree C. DyLight[®]488 conjugated goat anti-rabbit IgG (5-10µg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of GSTA4 using anti-GSTA4 antibody (AAA125700). GSTA4 was detected in paraffin-embedded section of human skeletal muscle tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/ml rabbit anti-GSTA4 Antibody (AAA125700) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of GSTA4 using anti-GSTA4 antibody (AAA125700). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human placenta tissue lysates Lane 2: human SH-SY5Y lysates Lane 3: human HEPG2 whole cell lysates Lane 4: human HEK293 whole cell lysates Lane 5: monkey skeletal muscle tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1. 5 hour at RT. The membrane was incubated with rabbit anti-GSTA4 antigen affinity purified polyclonal antibody (Catalog # AAA125700) at 0. 25 μg/mL overnight at 4 degree C, then washed with TBS-0. 1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1. 5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for GSTA4 at approximately 26KD. The expected band size for GSTA4 is at 26KD.

ADDITIONAL INFORMATION

Related Product Information for anti-GSTA4 antibody	Glutathione S-transferase A4, also known as GSTA4, is an enzyme which in humans is encoded by the GSTA4 gene. Cytosolic and membrane-bound forms of glutathione S-transferase are encoded by two distinct supergene families. These enzymes function in the detoxification of electrophilic compounds, including carcinogens, therapeutic drugs, environmental toxins and products of oxidative stress, by conjugation with glutathione. The genes encoding these enzymes are known to be highly polymorphic. These genetic variations can change an individual's susceptibility to carcinogens and toxins as well as affect the toxicity and efficacy of some drugs. At present, eight distinct classes of the soluble cytoplasmic mammalian glutathione S-transferases have been identified: alpha, kappa, mu, omega, pi, sigma, theta and zeta. This gene encodes a glutathione S-transferase belonging to the alpha class. The alpha class genes, located in a cluster mapped to chromosome 6, are the most abundantly expressed glutathione S-transferases in liver (hepatocytes) and kidney (proximal tubules). In addition to metabolizing bilirubin and certain anti-cancer drugs in the liver, the alpha class of these enzymes exhibit glutathione peroxidase activity, thereby protecting the cells from reactive oxygen species and the products of peroxidation.
References	1. Atkinson, HJ; Babbitt, PC (Nov 24, 2009). "Glutathione transferases are structural and functional outliers in the thioredoxin fold. ". Biochemistry 48 (46): 11108-16. 2. Boyer TD (March 1989). "The glutathione S-transferases: an update". Hepatology 9(3): 486-96.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4504173
NCBI GeneID	2941
NCBI Accession #	NP_001503.1
NCBI GenBank Nucleotide #	NM_001512.3
UniProt Accession #	O15217; Q5T7Q8; Q6P4G1; Q9BX18; Q9H414; B2RD15
Molecular Weight	14,884 Da
NCBI Official Full Name	glutathione S-transferase A4
NCBI Official Synonym Full Names	glutathione S-transferase alpha 4
NCBI Official Symbol	GSTA4
NCBI Official Synonym Symbols	GTA4; GSTA4-4
NCBI Protein Information	glutathione S-transferase A4; GST class-alpha member 4; S-(hydroxyalkyl)glutathione lyase A4; glutathione S-alkyltransferase A4; glutathione S-aralkyltransferase A4; glutathione S-aryltransferase A4; glutathione S-transferase A4-4; glutathione transferase
UniProt Protein Name	Glutathione S-transferase A4

UniProt Gene Name	GSTA4
UniProt Entry Name	GSTA4_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/gsta4-antibody-direct-elisa-flow-cytometry-immunohistochemistry-western-blot-elisa/125700>